Utilities

OVERWEIGHT
(Maintained)

Renewable Energy: UOB Kay Hian Green Economy Conference Wrap-Up

Analyst(s)
Chong Lee Len
leelen@uobkayhian.com
+603 2147 1992

Highlights

- Our recent Green Economy Conference featured distinguished industry leaders and experts, who provided valuable insights into Malaysia's renewable energy landscape and outlook.
- As Malaysia strives to achieve its Net Zero target by 2050, industry players look to navigate and capitalise on the evolving regulatory landscape with the introduction of new regulations on carbon tax, renewable energy PPAs and adoption schemes, waste management and nuclear adoption.
- We came away confident that orderbook and opportunities will remain robust into the next five years. Maintain OVERWEIGHT. Sector top picks are Tenaga, Pekat and Malakoff.

Analysis

- **Carbon Market: Supporting Malaysia's Net-Zero journey.** The Malaysian voluntary carbon market standardised contracts, transparent auction mechanisms, and a dedicated trading platform for carbon credits and Renewable Energy Certificates (RECs). This platform allows carbon project developers and renewable energy (RE) generators to monetise their carbon credits (CCs) and RE output by selling them to buyers seeking to offset their greenhouse gas (GHG) emissions, through the facilitation of the Bursa Carbon Exchange (BCX). While companies may offset Scope 1, Scope 2, and Scope 3 emissions through the purchase of CCs and address Scope 2 emissions via RECs, the Malaysian Carbon Market is intended to serve as a complementary mechanism to support corporates that have fully leveraged internal measures to reduce their carbon footprint.
- **A new CRESS auction in BCX.** In addition to CCs and RECs, BCX is introducing a Bilateral Energy Supply Contract (BESC) to auction green electricity by Nov 25. Its pilot project is in partnership with UEM Lestra's Corporate Renewable Energy Supply Scheme (CRESS) project. UEM Lestra is currently developing its CRESS portfolio across Peninsular Malaysia, which includes: a) a 1GW solar farm in Segamat, Johor (targeted COD: 1Q28), b) a 120MW solar farm in the Northern Region, and c) a 100MW solar farm in the Central Region (targeted COD: 4Q27).
- **Nuclear: Sustainable energy for Peninsular Malaysia.** Under the 13th Malaysia Plan (13MP), Malaysia aims to integrate nuclear energy into its national power mix by 2031, with MyPOWER Corp leading development efforts. The Ministry of Energy Transition and Water Transformation (PETRA) has also allocated RM28.6m for MyPOWER to facilitate infrastructure readiness and nuclear energy management in accordance with International Atomic Energy Agency (IAEA) standards.

Sector Picks

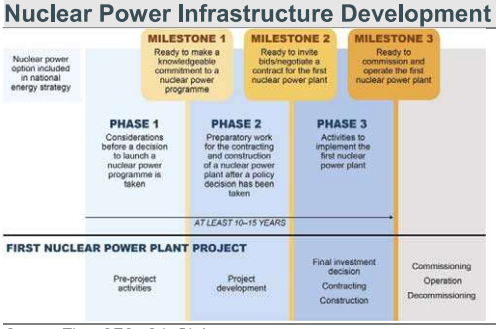
Company	Rec	Target Price (RM)	EV/EBITDA (x)	Div Yield (%)
Tenaga	BUY	16.30	5.4	3.9
Pekat	BUY	2.00	9.2	0.7
Malakoff	BUY	1.08	5.8	4.2

Source: Bloomberg, UOB Kay Hian

Malaysia's RE Mix Timeline Under The National Energy Transition Roadmap (NETR)

Source: MIDA

Nuclear Power Infrastructure Development



Source: The eCEOs Sdn Bhd

Peer Comparison

Company	Ticker	Rec	Price 23 Sep 25 (RM)	Target Price (RM)	Market Cap (RMm)	PE 2025F/2026F (x)	PE 2026F/2027F (x)	EV/EBITDA 2025F/2026F (x)	EV/EBITDA 2026F/2027F (x)	Dividend Yield 2025F/2026F (%)	Dividend Yield 2026F/2027F (%)
Malakoff Corp	MLK MK	BUY	1.06	1.08	5,180	24.8	19.8	5.8	5.3	3.3	4.2
Tenaga	TNB MK	BUY	13.20	16.30	76,945	17.3	16.2	5.4	5.1	3.9	4.0
Gas Malaysia	GMB MK	HOLD	4.68	4.25	6,009	15.0	14.1	9.0	8.3	5.2	5.4
Renewable Energy											
Pekat Group	PEKAT MK	BUY	1.83	2.00	1,183	19.2	17.1	9.2	7.6	0.7	0.7
Samaiden Group	SAMAIDEN MK	N.R.	1.48	n.a.	688	26.4*	20.6**	14.9*	11.1**	0.9*	0.9**
Solarvest Holdings	SOLAR MK	N.R.	3.11	n.a.	2,630	31.1*	24.1**	21.6*	17.4**	0.0*	0.0**
Sunview Group	SUNVIEW MK	N.R.	0.38	n.a.	216	18.1*	15.2**	10.0*	8.5**	0.0*	0.0**

** data for 2026F; **data for 2027F*
Source: Bloomberg, UOB Kay Hian

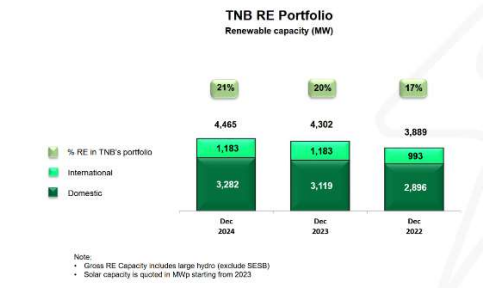
- **Nuclear energy may be the key to achieving Malaysia's 70% RE generation mix.** Due to high operating efficiency (of 97% vs coal power plants of 75%), nuclear power plants appear to be the most viable source of energy to complement RE and help wane off dependency on coal-fired power plants in Peninsular Malaysia. Currently, coal accounts for close to 60% of generation mix in Peninsular Malaysia, as a base load source of energy. Nuclear power plants will require substantial upfront capital (1,000MW: USD2-6b), but this is offset by a long operational lifespan of 60-80 years and will result in low levelised cost of energy that is comparable to that of wind power. Malaysia is likely to make a decision on nuclear plant-ups by 2030, and assuming there is political will to go through with a nuclear power plant, commercial operations will happen from 2040 onwards.
- **TNB Renewables: Global RE portfolio expansion.** Tenaga has set a long-term target of achieving 22GW of renewable energy (RE) capacity by 2050, building on its current RE portfolio of 4.6GW (operational and pipeline assets). TNB Renewables (TRe), a wholly-owned subsidiary of Tenaga, currently owns around 1,500MW of operational RE assets across four markets, namely: a) Malaysia - 203.6MW of solar and biogas capacity, b) the UK and Ireland - 907.8MW of solar and wind capacity (owned and operated by Vantage RE), c) Australia - 120.5MW solar farm (owned and operated by Spark Renewables), and d) Türkiye - 256.7MW of wind and hydro assets (legacy asset). While the majority of its overseas assets were acquired through outright purchases (executed by Vantage RE in the UK and Ireland) or through strategic investments in renewable asset owners (acquisition of Spark Renewables in Australia), TRe currently maintains a robust RE development pipeline totalling 3.47GW across its three key markets. This comprises: a) 1.36GW of solar farm projects in Malaysia, b) 114.6MW of onshore wind projects in the UK and Ireland, and c) 2.0GW of solar farm and BESS projects in Australia.
- **Knowledge transfer across different market landscapes.** TRe's expansion into international power markets supports Tenaga's goal of achieving 5GW of secured RE capacity by 2025, while enabling the exchange of technical expertise and market insights across diverse regulatory environments. This strategic diversification enhances TRe's understanding of varying Power Purchase Agreement (PPA) structures, financing requirements, and supply chain frameworks shaped by different market regulations. For instance, Australia's National Electricity Market (NEM) framework employs cost-reflective pricing mechanisms and performance-based incentives, similar to Malaysia's Incentive-Based Regulation (IBR) model. However, it operates under a five-year regulatory period with annual tariff adjustments, in contrast to Malaysia's three-year cycle, where base tariffs remain fixed throughout the regulatory period.
- **Alam Flora – a healthy concession worth RM2b.** Based on a run rate net profit of RM100m annually, Alam Flora is worth around RM2b, based on a PE of 20x (accounting for about 50% of Malakoff's market cap). Alam Flora has been dishing out dividends in the past two years and will likely support dividends in 2025-26. We understand that Alam Flora is exploring new concessions in other states within Peninsular Malaysia. Alam Flora currently operates in Kuala Lumpur, Putrajaya and Pahang. The company also aims to reduce its greenhouse gas emissions intensity by 30% by 2031 and, ultimately, become a net-zero emissions organisation by 2050.
- **AFES: Driving Malakoff's sustainability efforts through non-concession businesses.** Alam Flora Environmental Solutions (AFES) represents Malakoff's non-concession business which offers environmental solutions to corporations, government agencies and institutions. This includes recovery and recycling of municipal solid waste, scheduled waste/hazardous waste from marine ports and manufacturing facilities, and food waste treatment (through its composting machine and anaerobic digester). AFES plays a

Carbon Credits vs Renewable Energy Certificates (RECs)

	Carbon Credits	RECs
What it represents	1 tCO_2e avoided, reduced, or removed	1 MWh of electricity generated from a renewable source
Type of projects	• Nature-based projects • Tech-based projects	Renewable energy projects (solar, biomass, biogas, hydro, etc)
Additionality requirement	Yes: Need to prove that proceeds from carbon credit led to incremental climate action	No: As long as electricity is proven to be generated from renewable source
Addressable emissions	Scope 1, Scope 2, and Scope 3	Scope 2 (electricity consumption) only
Consumption terminology	Retirement of credits	Redemption of RECs
Standards adopted by BCX	• Verra • Gold Standard	• I-REC
Vintages accepted by BCX	2016 onwards	2023 onwards (2 year rolling vintage)

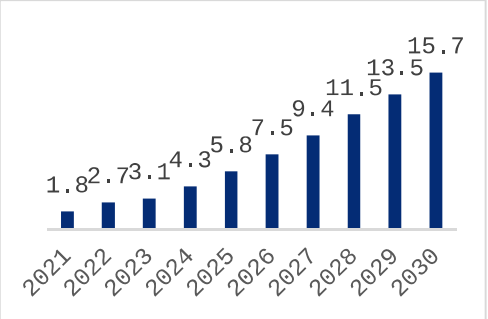
Source: BCX

TNB's RE Portfolio



Source: TNB

Malaysia's Solar PV Capacity Outlook



Source: TNB Renewables, GlobalData

Malakoff's GHG Emission Intensity

Source: AFES

significant role in achieving Malakoff's targets of achieving a recycling rate of 15-20 % by 2025 and reducing GHG emissions intensity by 30% by 2031 (from a 2019 baseline).

- **Leading Malaysia's adoption of large-scale WTE plants.** AFES (40% stake), in partnership with its parent-company Malakoff (60% stake), has also been awarded a 34-year concession to own and operate Malaysia's first large-scale waste-to-energy (WTE) facility in Sungai Udang, Melaka. The WTE facility will process around 960 tonnes of municipal solid waste per day (reduces 300,000 tonnes of waste annually) and generate 22MW of gross renewable energy under a PPA. The plant is currently in its early design stage and construction is expected to begin by 1H26 (commercial operation date expected by 2029) with project cost guided to be around RM760m. Malaysia is expected to add another 10-15 WTE facility throughout the Peninsular region with the Sungai Udang WTE plant positioned as the benchmark for future WTE projects.

Valuation/Recommendation

- **Maintain OVERWEIGHT; elevated orderbook driven by 6-7GW of solar plant-ups.** We expect total solar PV capacity to exceed 6.5GW over 2026-27 as the government calls for tenders for the LSS6 and the inaugural MyBeST programme. Assuming a construction cost of RM2.0m-3.5m per MW, total EPCC replenishment opportunities are estimated at a staggering RM13b-23b in the next five years. **We reiterate OVERWEIGHT on the sector. Our sector top picks are Tenaga Pekat and Malakoff.**
- **Key beneficiaries from the recent Budget 2026 tabling would include**: a) Tenaga Nasional Berhad (Tenaga) which will benefit from the ASEAN Power Grid, and b) Pekat Group (Pekat), which will benefit from elevated EPCC jobs from LSS6, Solar ATAP and off-grid projects in Sabah and Sarawak.
- **Key events in 2H25:** a) LSS6 bidding announcement towards 4Q25, and b) MyBeST award by 4Q25.

Sector Catalyst

- **MyBeST award to be announced by 4Q25.** Malaysia's inaugural grid-connected BESS project, known as MyBeST is expected to be awarded in 4Q25, with commercial operations slated for Apr 27. The project boasts four sites across Peninsular Malaysia (potentially in Perak and Negeri Sembilan). Each site allocated 100MW/400MWh of BESS capacity is expected to house about 90 containerised BESS units, each rated at 4.0-4.5MWh within 40-foot enclosures, occupying approximately 5-7 acres of land. Valued at approximately RM300m per site, successful bidders are anticipated to secure a 15-year PPA. The project's internal rate of return (IRR) is estimated at 5-6% based on capacity payments, potentially rising to 7-9% with additional service tariffs, comparable to LSS5 project returns.
- **Introduction of carbon tax a boon to Malaysia's Carbon Market.** The implementation of carbon tax will kick off in 2026, beginning with high-emission sectors such as steel, iron and energy. While detailed enforcement guidelines have yet to be announced, the National Climate Change Bill and the National Carbon Market Policy are expected to be tabled in Parliament in the coming months. We expect the government to adopt a gradual approach (starting with modest tax levels) while refining the framework over time. Interest in Malaysia's carbon market is expected to rise as high-emission industries explore offsetting mechanisms to mitigate the impact of the upcoming carbon tax.
- **LSS6 to promote up to RM7b in contracts for EPCC players.** We expect the Large-Scale Solar (LSS6) tender to kick-off sometime in 4Q25/1Q26. This

time, solar installations are likely to be coupled with a mandatory inclusion of battery energy storage system (BESS). Assuming a construction cost of RM3.0m-3.5m per MW (including BESS), total EPCC contract value is estimated at RM6b-7b for LSS6.

- **Solar ATAP expected to garner up to 500MW of solar rooftop installations.** Slated to begin on 1 Dec 25, we expect favourable solar rooftop adoption among residential, commercial and industrial, and government facilities under the Solar Accelerated Transition Action Programme (Solar ATAP), as consumers seek to capitalise on the 100% maximum demand installation capacity allowance and the opportunity to export excess generated energy to the grid but more importantly, to reduce peak demand charges imposed by Tenaga – which have tripled under the new tariff regime as of 1 Jul 25.

Disclosures/Disclaimers

This report is prepared by UOB Kay Hian Private Limited ("UOBKH"), which is a holder of a capital markets services licence and an exempt financial adviser in Singapore.

This report is provided for information only and is not an offer or a solicitation to deal in securities or to enter into any legal relations, nor an advice or a recommendation with respect to such securities.

This report is prepared for general circulation. It does not have regard to the specific investment objectives, financial situation and the particular needs of any recipient hereof. Advice should be sought from a financial adviser regarding the suitability of the investment product, taking into account the specific investment objectives, financial situation or particular needs of any person in receipt of the recommendation, before the person makes a commitment to purchase the investment product.

This report is confidential. This report may not be published, circulated, reproduced or distributed in whole or in part by any recipient of this report to any other person without the prior written consent of UOBKH. This report is not directed to or intended for distribution to or use by any person or any entity who is a citizen or resident of or located in any locality, state, country or any other jurisdiction as UOBKH may determine in its absolute discretion, where the distribution, publication, availability or use of this report would be contrary to applicable law or would subject UOBKH and its connected persons (as defined in the Financial Advisers Act 2001 of Singapore) to any registration, licensing or other requirements within such jurisdiction.

The information or views in the report ("Information") has been obtained or derived from sources believed by UOBKH to be reliable. However, UOBKH makes no representation as to the accuracy or completeness of such sources or the Information and UOBKH accepts no liability whatsoever for any loss or damage arising from the use of or reliance on the Information. UOBKH and its connected persons may have issued other reports expressing views different from the Information and all views expressed in all reports of UOBKH and its connected persons are subject to change without notice. UOBKH reserves the right to act upon or use the Information at any time, including before its publication herein.

Except as otherwise indicated below, (1) UOBKH, its connected persons and its officers, employees and representatives may, to the extent permitted by law, transact with, perform or provide broking, underwriting, corporate finance-related or other services for or solicit business from, the subject corporation(s) referred to in this report; (2) UOBKH, its connected persons and its officers, employees and representatives may also, to the extent permitted by law, transact with, perform or provide broking or other services for or solicit business from, other persons in respect of dealings in the securities referred to in this report or other investments related thereto; (3) the officers, employees and representatives of UOBKH may also serve on the board of directors or in trustee positions with the subject corporation(s) referred to in this report. (All of the foregoing is hereafter referred to as the "Subject Business"); and (4) UOBKH may otherwise have an interest (including a proprietary interest) in the subject corporation(s) referred to in this report.

As of the date of this report, no analyst responsible for any of the content in this report has any proprietary position or material interest in the securities of the corporation(s) which are referred to in the content they respectively author or are otherwise responsible for.

IMPORTANT DISCLOSURES FOR U.S. PERSONS

This research report was prepared by UOBKH, a company authorized, as noted above, to engage in securities activities in Singapore. UOBKH is not a registered broker-dealer in the United States and, therefore, is not subject to U.S. rules regarding the preparation of research reports and the independence of research analysts. This research report is provided for distribution by UOBKH (whether directly or through its US registered broker dealer affiliate named below) to "major U.S. institutional investors" in reliance on the exemption from registration provided by Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act"). All US persons that receive this document by way of distribution from or which they regard as being from UOBKH by their acceptance thereof represent and agree that they are a major institutional investor and understand the risks involved in executing transactions in securities.

Any U.S. recipient of this research report wishing to effect any transaction to buy or sell securities or related financial instruments based on the information provided in this research report should do so only through UOB Kay Hian (U.S.) Inc ("UOBKHUS"), a registered broker-dealer in the United States. Under no circumstances should any recipient of this research report effect any transaction to buy or sell securities or related financial instruments through UOBKH.

UOBKHUS accepts responsibility for the contents of this research report, subject to the terms set out below, to the extent that it is delivered to and intended to be received by a U.S. person other than a major U.S. institutional investor.

The analyst whose name appears in this research report is not registered or qualified as a research analyst with the Financial Industry Regulatory Authority ("FINRA") and may not be an associated person of UOBKHUS and, therefore, may not be subject to applicable restrictions under FINRA Rules on communications with a subject company, public appearances and trading securities held by a research analyst account.

Analyst Certification/Regulation AC

Each research analyst of UOBKH who produced this report hereby certifies that (1) the views expressed in this report accurately reflect his/her personal views about all of the subject corporation(s) and securities in this report; (2) the report was produced independently by him/her; (3) he/she does not carry out, whether for himself/herself or on behalf of UOBKH or any other person, any of the Subject Business involving any of the subject corporation(s) or securities referred to in this report; and (4) he/she has not received and will not receive any compensation that is directly or indirectly related or linked to the recommendations or views expressed in this report or to any sales, trading, dealing or corporate finance advisory services or transaction in respect of the securities in this report. However, the compensation received by each such research analyst is based upon various factors, including UOBKH's total revenues, a portion of which are generated from UOBKH's business of dealing in securities.

Reports are distributed in the respective countries or jurisdictions by the respective entities and are subject to the additional restrictions listed in the following table.

General	This report is not intended for distribution, publication to or use by any person or entity who is a citizen or resident of or located in any country or jurisdiction where the distribution, publication or use of this report would be contrary to applicable law or regulation.
Hong Kong	This report is distributed in Hong Kong by UOB Kay Hian (Hong Kong) Limited ("UOBKHHK"), which is regulated by the Securities and Futures Commission of Hong Kong. Neither the analyst(s) preparing this report nor his associate, has trading and financial interest and relevant relationship specified under Para. 16.4 of Code of Conduct in the listed corporation covered in this report. UOBKHHK does not have financial interests and business relationship specified under Para. 16.5 of Code of Conduct with the listed corporation covered in this report. Where the report is distributed in Hong Kong and contains research analyses or reports from a foreign research house, please note: (i) recipients of the analyses or reports are to contact UOBKHHK (and not the relevant foreign research house) in Hong Kong in respect of any matters arising from, or in connection with, the analysis or report; and (ii) to the extent that the analyses or reports are delivered to and intended to be received by any person in Hong Kong who is not a professional investor, or institutional investor, UOBKHHK accepts legal responsibility for the contents of the analyses or reports only to the extent required by law.
Indonesia	This report is distributed in Indonesia by PT UOB Kay Hian Sekuritas ("PT UOBKH"), which is regulated by Financial Services Authority of Indonesia ("OJK"). Where the report is distributed in Indonesia and contains research analyses or reports from a foreign research house, please note recipients of the analyses or reports are to contact PT UOBKH (and not the relevant foreign research house) in Indonesia in respect of any matters arising from, or in connection with, the analysis or report.
Malaysia	Where the report is distributed in Malaysia and contains research analyses or reports from a foreign research house, the recipients of the analyses or reports are to contact UOB Kay Hian (M) Sdn. Bhd. ("UOBKHM") (and not the relevant foreign research house) in Malaysia, at +603-21471988, in respect of any matters arising from, or in connection with, the analysis or report as UOBKHM is the registered person under CMSA to distribute any research analyses in Malaysia.
Singapore	This report is distributed in Singapore by UOB Kay Hian Private Limited ("UOBKH"), which is a holder of a capital markets services licence and an exempt financial adviser regulated by the Monetary Authority of Singapore.Where the report is distributed in Singapore and contains research analyses or reports from a foreign research house, please note: (i) recipients of the analyses or reports are to contact UOBKH (and not the relevant foreign research house) in Singapore in respect of any matters arising from, or in connection with, the analysis or report; and (ii) to the extent that the analyses or reports are delivered to and intended to be received by any person in Singapore who is not an accredited investor, expert investor or institutional investor, UOBKH accepts legal responsibility for the contents of the analyses or reports only to the extent required by law.
Thailand	This report is distributed in Thailand by UOB Kay Hian Securities (Thailand) Public Company Limited, which is regulated by the Securities and Exchange Commission of Thailand.
United Kingdom	This report is being distributed in the UK by UOB Kay Hian (U.K.) Limited, which is an authorised person in the meaning of the Financial Services and Markets Act and is regulated by The Financial Conduct Authority. Research distributed in the UK is intended only for institutional clients.
United States of America ('U.S.')	This report cannot be distributed into the U.S. or to any U.S. person or entity except in compliance with applicable U.S. laws and regulations. It is being distributed in the U.S. by UOB Kay Hian (US) Inc, which accepts responsibility for its contents. Any U.S. person or entity receiving this report and wishing to effect transactions in any securities referred to in the report should contact UOB Kay Hian (US) Inc. directly.

Copyright 2025, UOB Kay Hian Pte Ltd. All rights reserved.

http://research.uobkayhian.com

RCB Regn. No. 197000447W